

**DRINKING MOTIVES AS MEDIATOR IN THE
RELATIONSHIP BETWEEN SOCIAL ANXIETY AND
ALCOHOL USE AMONG PRIVATE UNIVERSITY
STUDENTS IN THE KLANG VALLEY**

SHARIVINI LEKHA A/P YOUVA RAJ

UNIVERSITI SAINS MALAYSIA

2016

**DRINKING MOTIVES AS MEDIATOR IN THE RELATIONSHIP
BETWEEN SOCIAL ANXIETY AND ALCOHOL USE AMONG
PRIVATE UNIVERSITY STUDENTS IN THE KLANG VALLEY**

by

SHARIVINI LEKHA A/P YOUVA RAJ

**Thesis submitted in fulfilment of the requirements
For the Degree of
Master of Science**

April 2016

ACKNOWLEDGMENT

I thank all who in one way or another contributed to the completion of this thesis. First, I give thanks to God for protection and the ability to do the work.

I would like to express my gratitude to my supervisor, Dr. Mohd Azhar Mohd Yasin, and co-supervisors Dr. Zahiruddin Othman and Dr. Azizah Othman, whose expertise, understanding, and patience, added considerably to my graduate experience. I appreciate their vast knowledge and skill in many areas, and their assistance in writing reports. I am also grateful to Universiti Sains Malaysia for offering me this course, all the members of the committee; Ethical Review Board, Examination Board, and Institute of Postgraduate Studies, USM for allowing me to successfully complete my studies in given time.

I would also like to thank the Course Coordinators, Student Counselors, lecturers and students; Mr. Raghunathan Ayyavoo (APU), Ms. Vicknisha Balu (APU), Ms. Suleygha Ashley Greig (SUNWAY UNIVERSITY), Mr. Ravinanath Rao Narenthra Rao (UNITEN), Mr. Jegan Poogavanam (IUKL), Mr. Arvin Kumar (INTI), Mr. Thepan Raj Nadharajo (INTI), Ms. Niroshini Manimaran (UNITAR) and Ms. Jusrine Felisha John Gregory (UCSI), from the participated private institutions for assisting me in data collection.

I am also deeply thankful to my informants and appreciate their transparency and help during my research. Their information has helped me complete this thesis.

I also thank my current company (University of Malaya), respective bosses and fellow colleagues, Ms. Noraien Abu Samah and Mr. Zainul Abidin Hassan, for their support and motivation, and for understanding my need of time in meeting deadlines.

Finally, I take this opportunity to express the profound gratitude from my deep heart to my family for the support they provided me through my entire life and in particular, I must acknowledge my late father whose last word was he is a proud dad of his little girl for graduating with flying colors, and my mother without whose love, encouragement and financial support I would not have come to this level in my life. A special thanks to my husband who has been supporting me materially and non-materially during my postgraduate studies. I recognize that this research would not have been possible without the financial assistance from them.

May the Almighty God richly bless everyone who had directly and indirectly contributed to my success.

TABLE OF CONTENTS

	Page
Acknowledgement	ii
Table of contents	iii
List of tables	vii
List of figures	ix
List of abbreviations	x
Abstrak	xi
Abstract	xii

CHAPTER 1 – INTRODUCTION

1.1	Background	1
1.2	Statement of Problem	18
1.3	Significance of Study	20
1.4	Relevant to Local Population	22
1.5	Definition of the Study	23

CHAPTER 2 – LITERATURE REVIEW

2.1	Social Anxiety and Alcohol Use	27
2.2	Drinking Motives between Social Anxiety and Alcohol Use	44

CHAPTER 3 – OBJECTIVES AND HYPOTHESES

3.1	Research Questions	70
3.2	Objectives	
	3.2.1 General Objectives	71

3.2.2	Specific Objectives	71
3.3	Hypotheses	72
3.4	Conceptual Framework	73

CHAPTER 4 – RESEARCH METHODOLOGY AND DESIGN

4.1	Study Design and Duration	74
4.2	Study Location, Sampling Method and Sampling Frame	74
4.3	Study Population	
4.3.1	Study Subject	76
4.3.2	Sample Size Determination	76
4.3.3	Reference Population and Source Population	76
4.4	Study Criteria	
4.4.1	Inclusion Criteria	77
4.4.2	Exclusion Criteria	77
4.5	Research Instruments	
4.5.1	Socio-Demographic Details	77
4.5.2	Social Interaction Anxiety Scale	78
4.5.3	Alcohol Use Disorders Identification Test	78
4.5.4	Modified Drinking Motives Questionnaire-Revised	80
4.5(a)	Reliability	81
4.6	Variables	81
4.7	Data Collection	82
4.8	Data Entry and Statistical Analysis	83
4.9	Flowchart	85
4.10	Ethical Consideration	86

4.11	Confidentiality	86
4.12	Conflict of Interest	87
4.13	Vulnerability	87
4.14	Risk and Benefit	87

CHAPTER 5 – DATA ANALYSIS AND FINDINGS

5.1	Participants Demographic	88
5.2	Association between Socio-demographic Variables and Dependent Variables	90
5.2.1(a)	Group Means of Socio-demographic Variables on Dependent Variables	91
5.2.1(b)	Relationship between Socio-demographic Variables on Dependent Variables	94
5.2.2(a)	Social Anxiety	96
5.2.2(b)	Gender, Age and Year of Study in Social Anxiety	97
5.2.3(a)	Alcohol Use	99
5.2.3(b)	Gender, Age and Year of Study in Alcohol Use	101
5.2.3(c)	Gender, Age and Year of Study in Components of Alcohol Use	103
5.2.4(a)	Drinking Motives	104
5.2.4(b)	Gender, Age and Year of Study in Drinking Motives	104
5.3	Role of Drinking Motives in the Relationship between Social Anxiety and Alcohol Use	
5.3.1(a)	The Relationship between Social Anxiety and Alcohol Use	106
5.3.1(b)	Differences in the Level of Social Anxiety in Prediction of Alcohol Use	108
5.3.1(c)	Social Anxiety and Components of Alcohol Use	108
5.3.2(a)	The Relationship between Drinking Motives and Alcohol Use	109
5.3.2(b)	The Relationship between Drinking Motives and Components of Alcohol Use	110
5.3.3(a)	The Relationship between Social Anxiety and Drinking Motives	111

5.3.3(b)	Level of Social Anxiety in Prediction of Drinking Motives	112
5.3.4(a)	The Relationship between Social Anxiety, Drinking Motives and Alcohol Use	113
5.3.4(b)	Mediation Analysis	115

CHAPTER 6 – DISCUSSION & CONCLUSION

6.1	Discussion	122
6.1.1	Social Anxiety and Alcohol Use	127
6.1.2	Drinking Motives and Alcohol Use	130
6.1.3	Social Anxiety, Drinking Motives and Alcohol Use	136
6.1.4	Implication of the Study on Intervention and Prevention of Alcohol Use Problem	138
6.2	Limitation and Recommendation	140
6.3	Conclusion	142

REFERENCES	147
-------------------	-----

APPENDICES

APPROVAL BY HUMAN RESEARCH ETHICS COMMITTEE USM
 INFORMED-CONSENT
 QUESTIONNAIRES

LIST OF PUBLICATIONS

LIST OF TABLES

		Page
Table 1.1	Prevalence of Alcohol Drinker by State in Malaysia in Year 2011	4
Table 1.2	Alcohol Level per 100ml of Blood and its Effects on the Brain	7
Table 4.1	Research Sample Size Calculation	76
Table 4.2	Study Pro-forma	77
Table 5.1	Socio-Demographic Statistics of Respondents	89
Table 5.2	Statistics of Respondents based on Years of Study in each Level of Study	90
Table 5.3a	Mean Scores of Socio-demographic Factors on each Dependent Variable	91
Table 5.3b	Summary of the Variation among Group Means of each Socio-Demographic Factor in Respect to Social Anxiety, Alcohol Use and each Drinking Motives	94
Table 5.4	Correlation within all Variables	95
Table 5.5	Respondents' Level of Social Anxiety Respective to Socio-demographics Factors	96
Table 5.6	Differences of Mean Scores by Gender, Age and Year of Study on Social Anxiety	98
Table 5.7	Respondents' Level of Alcohol Use Respective to Socio-demographics Factors	100
Table 5.8	Mean Difference between Gender on Alcohol Use	101
Table 5.9	Mean Differences of Age and Year of Study on Alcohol Use	102
Table 5.10	Mean Scores of Alcohol Use Components Respondents' Gender, Age and Year of Study	104
Table 5.11	Mean Differences of Gender on Drinking Motives	105

Table 5.12	Mean Differences of Age and Year of Study on Drinking Motives	106
Table 5.13	Bivariate and Partial Correlation between Social Anxiety and Alcohol Use	106
Table 5.14	Differences in Mean Rank of the Levels of Social Anxiety on Alcohol Use	108
Table 5.15	Differences of Mean in the Levels of Social Anxiety Predicting Alcohol Use Components	109
Table 5.16	Relationship between Drinking Motives and Alcohol Use at Different Levels of Social Anxiety	109
Table 5.17	Relationship between Drinking Motives and Components of Alcohol Use	110
Table 5.18	Prediction of Alcohol Use Components from Drinking Motives	111
Table 5.19	Correlation between Levels of Social Anxiety and Drinking Motives	112
Table 5.20	Differences of Mean in the Levels of Social Anxiety on Prediction of Drinking Motives	113
Table 5.21	Prediction of Alcohol Use by Drinking Motives and Other Independent Variables for Each of Level of Social Anxiety	114
Table 5.22	Prediction of Alcohol Use from Social Anxiety	117
Table 5.23	Prediction of Drinking Motives from Social Anxiety	117
Table 5.24	Prediction of Alcohol Use from Social Anxiety and Drinking Motives	119
Table 5.25	Indirect Effect Size of Drinking Motives	120

LIST OF FIGURES

		Page
Figure 1.1	The effect of drinking motives on alcohol use among socially anxious students	17
Figure 3.1	The conceptual framework.	73
Figure 4.1	The flowchart.	85
Figure 5.1	Means plots of age differences in social anxiety.	99
Figure 5.2	Prevalence of Alcohol Use by Race	102
Figure 5.3	Scatter Plot showing a positive relationship between social anxiety and alcohol use.	107
Figure 5.4	Mediation path diagram.	116
Figure 5.5	Mediator effect on prediction of alcohol use.	120
Figure 6.1	The most significant effects of drinking motives on alcohol use components.	134

LIST OF ABBREVIATIONS

DSM-IV	Diagnostic and Statistical Manual of Mental Health IV
WHO	World Health Organization
USDOT	United States Department of Transportation
NHTSA	National Highway Traffic Safety Administration
UKDOT	United Kingdom Department of Transportation
MIROS	Malaysian Institute of Road Safety Research
NHMS	National Health and Morbidity Survey
GISAH	Global Information System on Alcohol and Health
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIMH	National Institute of Mental Health
MPA	Malaysian Psychiatric Association
SAD	Social Anxiety Disorder
AUD	Alcohol Use Disorder
SIAS	Social Interaction Anxiety Scale
AUDIT	Alcohol Use Disorder Identification Test
DMQ-R	Drinking Motives Questionnaire-Revised
CGPA	Cumulative Grade Point Average
SAD-G	Social Avoidance and Distress in General
SAD-NEW	Social Avoidance and Distress in New Situations
SPSS	Statistical Package for Social Sciences
M	Mean
SD	Standard Deviation
SA	Social Anxiety
AU	Alcohol Use
ENH	Enhancement Motives
SC	Social Motives
CF	Conformity Motives
CP	Coping Motives

**MOTIF MINUM SEBAGAI PERANTARA DI ANTARA KEBIMBANGAN SOSIAL
DAN PENGGUNAAN ALKOHOL DALAM KALANGAN PELAJAR UNIVERSITI
SWASTA DI LEMBAH KLANG**

ABSTRAK

Kebelakangan ini, penggunaan alkohol mula menjadi satu kebiasaan untuk mendapatkan ketenangan, penerimaan di kalangan rakan dan juga mengurangkan ketakutan terhadap kemampuan diri. Penggunaan alkohol terus menjadi kebimbangan utama terhadap mereka yang berumur di antara 15-29 tahun, terutamanya pelajar universiti yang berada di tahun pertama. Kajian ini bertujuan untuk mencari hubungkait kepada penggunaan alkohol di kalangan mereka yang mengalami gejala kebimbangan sosial melalui kajian kuantitatif ke atas 600 orang pelajar universiti swasta di sekitar Lembah Klang menggunakan instrumen *Social Interaction Anxiety Scale*, *Alcohol Use Disorders Identification Test* and *Drinking Motive Questionnaires-Revised*. Motif *coping* dan motif *conformity* telah dijangka sebagai mediator yang paling ketara di antara kebimbangan sosial dan penggunaan alkohol. Keputusan kajian ini telah menunjukkan motif *coping* ($\beta = .27, p < .001$) diikuti dengan motif *conformity* ($\beta = .13, p < .05$) sebagai penyumbang terbesar kepada model ramalan yang dianalisis. Pelajar yang mengalami gejala kebimbangan sosial yang tinggi lebih mudah menerimapakai motif *coping* dan *conformity* di mana motif *coping* dipercayai menjadi punca kepada kesan negatif jangka panjang akibat percanggahan berkaitan kesan negatif tersebut tidak dibincangkan secara meluas dalam kajian terdahulu.

**DRINKING MOTIVES AS MEDIATOR IN THE RELATIONSHIP BETWEEN
SOCIAL ANXIETY AND ALCOHOL USE AMONG PRIVATE UNIVERSITY
STUDENTS IN THE KLANG VALLEY**

ABSTRACT

As social anxiety becomes a threat, drinking alcohol becomes a trend in experiencing relaxation, acceptance and decreases performance fear. Alcohol use continues to be a major concern among people within the age group 15 – 29, particularly first year university students. This thesis sought to assist in integrating a detailed analysis of potential unique mediator of alcohol use among socially anxious people through a quantitative study among 600 private university students in the Klang Valley using Social Interaction Anxiety Scale, Alcohol Use Disorders Identification Test and Drinking Motive Questionnaires-Revised. Coping and conformity motives were hypothesized to be the most significant mediator in the relationship between social anxiety and alcohol use. By examining the beta weights, coping motives ($\beta = .27$, $p < .001$) followed by conformity motives ($\beta = .13$, $p < .05$) were making relatively large contributions to the prediction model, followed by social anxiety ($\beta = .15$, $p < .01$) while controlling the mediators. Students with high social anxiety endorsed greater negative reinforcing drinking motives (coping, conformity) which independently mediated the relation between the two variables studied; in which the coping motives were believed to lead to adverse long-term consequences because the discrepancies that foster negative affects have never been adequately addressed.

CHAPTER ONE

INTRODUCTION

“That’s the problem with drinking, I thought, as I poured myself a drink. If something bad happens you drink in an attempt to forget; if something good happens you drink in order to celebrate; and if nothing happens you drink to make something happen.” -Charles Bukowski, (Women, 1978)

1.1 Background

Upon competing in the socially challenged world, people choose varieties of methods to improvise their poor social adjustment. One of the most common and leading method these individuals seek is alcohol, which is widely being used as a coping and/or enhancement mechanism.

Malaysia is a nation made up of diverse groups, in which the religion value of each group forbids the use of intoxicants. As shared by Azizi (2009), in the Koran, the Surah Al-Maidah 5:90.91 says “Wine and games of chance are abominations devised by the devil. Avoid them so that you may prosper. The devil seeks to up enmity and hatred among you by means of wine and gambling, and to keep you from the remembrance of Allah and from your prayers. Will you not abstain from them?”. One of the Eight Precepts of Buddhism states very clearly, “Buddhists should abstain from liquor.”. The Hindu sage Thiruvalluvar says, “... they that drink liquor are no other than poison drinkers and therefore do not differ from dead man.”. Bible says, in the Book of Proverbs Chapter 23:29-33, “Do not look at wine when it is red, when it sparkles in the cup and goes down smoothly. At the last it bites like a serpent,

and stings like an adder. Your eyes will see strange things, and your mind utter perverse things” (Azizi, 2009).

Many people are not aware that Malaysia was once had no signs of alcohol consumption or production of alcohol until the arrival of Europeans in the 17th century (Jernigan & Indran, 1999), except for locally produced rice wine known as *tuak* in Sarawak. However, with the exposure to Westernization over time, Malaysia grows to be competent with European countries and has become the home for many international brewers and distillers (Jernigan & Indran, 1999). The most well-known and widely used alcohol; a family of organic substances consisting of the elements carbon, hydrogen and oxygen, is ethanol (Azizi, 2009). Alcohol is usually consumed in the form of alcoholic beverages. Brandy has about 40% of ethanol content, whisky has about 37.0% to 40.0%, samsu has 37.0% to 70.0%, toddy has 12.0% to 14.0%, stout has 8.0% and lastly lager has 5.0% (Azizi, 2009).

Most college students indulge in heavy drinking at early onset due to various factors. Among the reasons that create this opportunity are their attitude and personality characteristics, including proneness to deviant behavior (O'Leary-Barrett, Mackie, Castellanos-Ryan, Al-Khudhairy, & Conrod, 2010), lack of academic interest, sensation seeking, uncontrolled impulsivity (Ham & Hope, 2003), and extreme self-confidence that pushes an individual to feel to be right at all time. Besides that, these individuals would have a poor relationship with family and friends. The chances of these individuals to involve in aggressive acts like vandalism and gangsterism are high in the influence of alcohol. Harvard School of Public Health College Alcohol Study (CAS) had randomly surveyed 140 colleges in 39 states and the District of Columbia, in which Wechsler, Lee, Kuo, and Lee (2000) outlined that among 388 college freshman, 22.0% reported engaging in unintentional sexual

situations under the influence of alcohol, as well as experienced blackouts (45.0%), increased tolerance (56.0%), and withdrawal symptoms (5.0%).

The Diagnostic and Statistical Manual of Mental Disorders IV defines alcohol abuse as drinking despite alcohol-related physical, social, psychological, or occupational problems, or drinking in dangerous situations, such as while driving (American Psychiatric Association, 1994). Alcohol rated to be the most abused substance and one of the most dangerous drugs, related to a number of diseases and other aversive outcomes. Larger consumption of alcohol slows down the functions of central nervous system (Eckardt et al., 1998), thus creates more opportunities of making a careless speech and judgements, motor immobility, emotional and memory impairment.

A larger quantity of alcohol and negative consequences; which literally defined problematic drinking (Ham & Hope, 2003) could trigger illegal actions, for instance, robbery and speeding. The United States Department of Transportation (USDOT) claimed that 6,002 people age 16-20 died in motor vehicle crashes in the year 2003, and 38.0% of these deaths involved alcohol use. Chambers, Liu, and Moore (2014) from the USDOT reported that three people were killed every two hours due to drunk driving, estimated 4 million and 112 million adults in the U.S., respectively, engaged in drink-and-drive and alcohol-impaired driving episodes in the year 2010; with men accounted for 81.0%.

The National Highway Traffic Safety Administration (NHTSA, 2005) proclaimed that at least three young adults are killed each day when they drive under the influence of alcohol. Tuddenham (2013) from the United Kingdom Department of Transport (UKDOT) reported there were 220 fatal drink drive accidents in 2011 and 290 fatalities resulting from drink drive accidents in 2012 in Great Britain. As of the statistics for the year 2011; amongst

those killed in drink drive accidents, the majority (68.0%) is drivers and riders over the legal alcohol limit. In 2012, of more than 10,000 road users had experienced major and minor injuries due to drink-and-drive accidents in Great Britain (Tuddenham, 2013).

Malaysia, in particular, is the 10th largest consumer of alcohol in the world. A prevalence rate of drinker by state in the year 2011 which was presented by the National Health and Morbidity Survey (NHMS, 2011) had stated that the highest rate of consumers lies in Kuala Lumpur with 19.3% and the least at Kelantan (0.3%), as shown in Table 1.1.

Table 1.1

Prevalence of Alcohol Drinker by State in Malaysia in Year 2011

State	Percent	State	Percent	State	Percent
WP Kuala Lumpur	19.3%	Johor	12.5%	Pahang	4.2%
Sarawak	17.8%	Selangor	11.8%	Perlis	1.8%
Sabah	16.4%	Negeri Sembilan	8.9%	Terengganu	0.9%
Penang	14.2%	Melaka	8.9%	WP Putrajaya	0.7%
Perak	13.1%	Kedah	5.9%	Kelantan	0.3%

The NHMS (2011) had studied Malaysia's prevalence rates, according to gender, age and ethnicity, in which the male consumers were 11.5% higher than the females who were only 5.7%. The prevalence rate for underage drinkers which involves students was 8.5%. Whereas in accordance to age, the high rate (15.7%) reported for drinking alcohol were the individuals in their early 20s' and early 30s', and thereafter decreases as the age grows older. The ethnic group that consumes highest level of alcohol was the Chinese; 27.5%, followed by Other Bumi; 20.3%. Indian were rated to be 18.8% of the population; third highest population consuming alcohol. Malay, however, being the least alcohol consumers, scored only 0.9% compared to other minority ethnic groups that consisted of 11.3% nationwide.

WHO: Global Status Report on Alcohol (2004) published that 45.0% of Malaysian youths below the age of 18 years old consume alcohol regularly, and estimated that 30.0% of road accidents in Malaysia were caused by driving under alcohol intakes. Of a total of 710

fatal road traffic deaths registered by the Malaysian Institute of Road Safety Research (MIROS) for the period between 2006 and 2009, Norlen et al. (2012) concluded that 76.8% cases of road traffic deaths were tested positive for alcohol and other drug substances, in which the majority were male road users within the age group of 20 years old to 29 years old. The number of fatal road accidents and injuries due to excessive use of alcohol in Malaysia is very alarming to the nation.

Each year, Malaysians spend over US\$500 million on alcohol (Assunta, Idris & Hamid, 2010). Among the drinking population, the Malaysian Indian who consists of about 8.0% of the population is by far the heaviest drinkers with alcohol consumption exceeding 14 litres per annum (NHMS, 1996). The easy availability of alcoholic drinks in cafeterias, supermarkets, sundry shops and plantations together with extreme promotions and media advertisements are the most potential factors that contribute to alcohol drinking behavior.

Alcohol, too, has been a major factor contributing to poverty in Malaysia. The biggest victims of alcohol in Malaysia are the poor, particularly the Indian laborers who work in rubber and oil palm plantations in rural strata; 8.9%, compared to urban drinker prevalence of 12.6% (NHMS, 2011). This category of people drinks samsu, a locally distilled potent spirit, and toddy. Of the 200,000 drinkers, 75.0% are samsu drinkers. A regular drinker consumes six bottles a day, cost RM9.00 way back in 1996, thus he spends more than three quarter what he earns monthly on the beverages while causes dissonance in the home, abuse children, and has a higher tendency of being unemployed or sick who become a burden to both the family and society (NHMS, 1996).

In terms of the economy, Malaysia spends an annual expenditure closed to RM2 billion for buying alcoholic beverages (Assunta et al., 2010). Over the past four decades

alcohol consumption has increased tremendously in quantity and frequency. According to Ardiah, Zaidah, and Rokiah (2009), among the Dusun community in Sabah, it was found that the onset age of drinking alcohol in Malaysia is under age 15 which then increases with age. The highest alcohol consumers were within the age group of 18 – 20 years old which marked 44.0% of the respondents studied (Ardiah et al., 2009). The leading factors of this phenomenon were believed to be the wide availability of alcohol beverages, social incitement and parents as role model. However, the descriptive statistics for Malaysian students engaging in various problematic drinking is insufficient and the closest motivating factor for drinking is insufficient, thus requires more researches in this area.

Based on world records, numerous studies and surveys have been carried on to compute the statistics of alcohol-related issues. WHO (2011) indicated that there are 60 different types of diseases due to alcohol use. Alcohol, based on the Global Status Report, is the third largest risk factors for diseases, and is the leading risk factor in the Western Pacific region, such as Malaysia (WHO, 2011). According to the Global Information System on Alcohol and Health (GISAH), estimated 4.0% of total deaths globally are related to alcohol, which approximately of 2.5 million deaths per year caused by harmful use of alcohol (WHO, 2011). An estimated 320,000 people between the age 15 years old and 29 years old, which were 9.0% of the age group globally, died from alcohol-related causes such as injuries, cancer, cardiovascular diseases and liver cirrhosis (Global Status Report, 2011). The Table 1.2 shows the alcohol level per 100ml of blood and its effects on the brain alone (Azizi, 2009).

Table 1.2

Alcohol Level per 100ml of Blood and its Effects on the Brain (Azizi, 2009)

mg/100ml	Effects
20	Ability to socialize increases
30	Euphoria
50	Muscle and physical coordination is reduced
80	Loss of body balance, blurred vision and slurred speech
100	Loss of muscle coordination
300	Sleepy and vomiting
400	Coma, loss of consciousness and amnesia
500	Suffocation (respiratory failure) and death

Note: mg/100ml = Alcohol level per 100ml of blood.

Alcohol use continues to be a major concern among people within the age group 15 – 29 years old (WHO, 2011). Problematic drinking among this age group is highly prevalent, Ham, Bonin, and Hope (2007) reported 40.0% of college students experience “binge drinking”; a heavy drinking behavior that refers to consuming an average of more than two drinks per day, or more than 14 drinks per week; for men, and half of the stated frequency for women (National Institute on Alcohol Abuse and Alcoholism [NIAAA], n.d). This age range between 18 and 25 years old fits the approximate ages of students in higher institutions, and to find the relationship between the contributing factor and alcohol use; and the mediator that supports the bridge between these two threats are the aims of this thesis. In this study, social anxiety has been expected to play a priority role in engaging students in the consumption of alcohol.

One of the most common mistakes made when addressing behavioral issues is the failure to recognize that the behavior often stems from fear of social norms. This leads to social anxiety; a normal human nature, yet also the discomfort and inhibition people experience in social context (Leary, 2013) at its extreme, in which we may be the center of focus and attention or evaluation. It is a multidimensional phenomenon, which includes shyness, fear of discrimination, fear of negative evaluation, rejection, social avoidance and

distress, audience anxiety, communication apprehension, humiliation, and embarrassment (Puklek & Vidmar, 2000). It leads to chronic impairment (Ginsburg, La Greca, & Silverman, 1998), which can happen in one or a few areas in life. The symptoms of social anxiety could be a fear of involvement in social interaction, have poorer social skills, develop a negative perception of their social acceptance, and are subject to negative peer interactions (Ginsburg et al., 1998). Socially anxious individuals often experience troubles in forming or maintaining interpersonal relationships with others (La Greca & Harrison, 2005).

The fear of negative evaluation occurs, as suggested by numerous studies, when an individual has low self-esteem, which is an essence in shaping one's well-being. Social comparison theory proposed that individuals belonging to the low - status group will instill negative evaluation on themselves based on their beliefs about how they were being perceived by others, which is likely to contribute to negative interpersonal interactions (Borelli & Prinstein, 2006). This will eventually lead to negative self-perception, thus promotes fear being in crowd. The fear grows excessive over time and will give debilitating impacts on individual's social functioning (Brown & Marshall, 2002) and vocational success that could last a lifetime.

The onset age of the occurrence of social anxiety begins in late childhood throughout adolescence period and may continue till adulthood (Beesdo, Knappe, & Pine, 2009). Social anxiety occurs in females nearly twice as often as males (Ginsburg et al., 1998). Beidel, Turner, and Morris (1999) (as cited in Alfano, Beidel, & Turner, 2006) discovered that the recent prevalence estimates of social anxiety indicated that up to 3–4% of children and preadolescent are to be affected. The National Institute of Mental Health (NIMH) showed that anxiety disorders had the highest prevalence rate among mental disorders (National

Institute of Mental Health [NIMH], 2008). Estimated 26.9 million and 13.3% Americans had been socio-functionally impaired by anxiety disorders and had social anxiety, respectively, during their period of lifetime (Valente, 2002). Malaysian Psychiatric Association (MPA, 2006) stated that it is statistically proven that Social Anxiety Disorder (SAD) is the third largest mental health problem following depression and alcohol dependence symptoms, globally. Across the world, 7 out of a 100 people diagnosed with social anxiety disorder at any time, and 13 out of a 100 people experience social anxiety sometimes during their lives (Malaysian Psychiatric Association [MPA], 2006).

As social anxiety being a great threat to the prevalent age group, particularly students, alcohol drinking becomes a trend when they are indeed interested in experiencing relaxation due to social fears or acceptance among peers. Researchers framed social anxiety as social cognitive causes that might be related in proactive prosocial behavior and attempting aggressive behavior. Proactive prosocial behavior refers to the self-serving social cognitive style, which means, of gaining something from doing something (Culotta & Goldstein, 2008). In such situation, alcohol has become the alternate mechanism that helps these people relax, or enjoy, or to just feel confident about own self.

Past studies (e.g., Abrams, Kushner, Medina & Voight, 2002; as cited in Gilles, Turk, & Fresco, 2006) show that alcohol consumption decreases performance fear. These researchers suggested that an individual either drinks to be socially active, or do not consume alcohol to avoid acting even more embarrassing in public. Social and problem drinkers believe that drinking alcohol is a fear and/or stress reliever. The effect of alcohol on the central nervous system and social impulses and its recovery action on physical and emotional

pain are often suggested as reasons why people begin and maintain their drinking behavior, despite knowing its side effects and medium- to long-term ill effects on health.

Studies have found a strong comorbidity between social anxiety and alcohol use disorders, such as studied by Grant et al. (2005). For instance, individuals with social anxiety disorder are two to three times more likely to establish alcohol use disorder, and similarly individuals with alcohol use disorder tend to demonstrate social anxiety approximately ten times higher than those without alcohol use disorder (Stewart, Morris, Mellings & Komar, 2006).

Alcohol use and social anxiety disorders together can result in both significant physiological and psychological impairment, especially among individuals with comorbid diagnoses (Smith & Randall, 2012). The comorbidity of these disorders is among the five most prevalent mental disorders (Kessler et al., 2005; as cited in Schneier et al., 2010), and tend to co-occur at particularly high rates. The National Epidemiological Survey on Alcohol and Related Conditions found that 48% of individuals with a lifetime diagnoses of Social Anxiety Disorder (SAD) met criteria for Alcohol Use Disorder (AUD) at some point in their lives (Grant et al., 2005; as cited in Buckner et al., 2008).

Many studies have been conducted to find the specific factors that moderate or mediate the relationship between social anxiety and alcohol use. In this study, drinking motives will be examined to find the potentiality being a mediator between Social Anxiety Disorder and Alcohol Use Disorder. Drinking motives are known as the reasons or final decision whether to drink alcohol or not; and therefore it appears to be the most proximal factor contributing to the consumption of alcohol beverages (Kuntsche, Knibbe, Gmel, & Engels, 2006).

Drinking motives are considered more adjacent factors predicting alcohol use compared to alcohol expectancies which sounds quite similar. Alcohol expectancies are the expectation placed upon drinking outcome, while drinking motives are the reasons to drink alcohol in achieving the outcome. A person with alcohol expectancies with a particular belief or expectation, for instance, alcohol relieves stress, would not necessarily consume alcohol for that reason; instead may drink to socialize in parties. On the other hand, drinking motives are the reasons that immediately motivate a person to drink to achieve a desired feeling.

The drinking motives can be characterized into two dimensions; (i) “valence” (positive reinforce vs. negative reinforce), that is the tendency of consuming alcohol in hope to gain a positive outcome (positive reinforcement) or to avoid a negative outcome (negative reinforcement), and (ii) “source” (internal generator vs. external generator), which is to drink to achieve an internal reward (the manipulation of their own emotional state), or to earn an external reward (such as social approval) (Stewart & Devine, 2000). The four specific drinking motives proposed by Cooper (1994) were (i) enhancement motives; internally generated positive reinforcement (to increase positive affect), (ii) coping motives; internally generated negative reinforcement (to decrease negative affect), (iii) social motives; externally generated positive reinforcement (to gain social affiliation) and (iv) conformity motives; externally generated negative reinforcement (to avoid social rejection) (Mushquash, Stewart, Comeau, & McGrath, 2008; Stewart & Devine, 2000).

Enhancement motives involve drinking to increase positive affect states or positive moods, such as sensation seeking and pleasurable moments (Ham & Hope, 2003). Alcohol is widely used to fulfil desire for enthusiasm and stimulation to create the thrills and sensation over the social situations. Reports suggested that individuals who are internally generated are

more consistent across a drinking situation on their drinking pattern than those of with external motives, resulting them consuming higher levels of alcohol (Ham & Hope, 2003; Loxton, Bunker, Dingle, & Wong, 2015) for both genders (Loxton et al., 2015). However, Lewis et al. (2008) found that enhancement motives were actually mediated by alcohol use, and were greatly associated with increased drinking quantity (Kenney, Paves, Grimaldi, & LaBrie, 2014) and alcohol-related problems; for instance, unsafe sex.

In addition, enhancement-motivated drinkers appeared to drink faster or swigged the drinks in few gulps; thus this enhancement motives cause frequent blackout. Besides blackout, social or interpersonal consequences too were reported in these drinkers, which predicted heavy drinking among both genders (Merrill, & Read, 2010). Enhancement motives are often associated with those individuals who are extrovert, sensation-seekers and risk-seekers, highly impulsive, aggressive, have low inhibitory control and low responsibility, and a weakly motivated to achieve (Kuntsche, Knibbe, Gmel, & Engels, 2006). Mezquita, Stewart, and Ruipérez (2010), similarly, stated that enhancement motives were reported higher among extroverts' men whom were defined as carefree drinkers and were related to drinks per month.

Social motives involve drinking to achieve social affiliation as such to establish or maintain a good relationship or to attract the opposite sex. Stewart and Devine (2000) suggested that the socially motivated drinkers (drinking for social reasons) were tending to be outgoing individuals who use alcohol to get aligned with peers in the social situations. Social motives are often regarded as being a predictor for larger alcohol frequency and alcohol-related problems among college students (Ham et al., 2007; Ham, Zamboanga, Bacon, & Garcia, 2009).

Social motives can also be referred as normative drinking behavior. Though it has the tendency to promote to frequent drinking behavior, this drinking motive did not seem to increase the risk of alcohol-related problems (Ham & Hope, 2003). Those individuals who are highly motivated to drink for social reasons are tend to be Extrovert, and have high Agreeableness to please others in surrounding, yet a low Intellect/ Imagination by which they failed to broaden their mind to think on own and are tending to follow the thoughts and beliefs expressed by their peers onto the drinking action. These characteristics were seen higher among males; thus suggested that men drink more to obtain social rewards (Theakston, Stewart, Dawson, Knowlden-Loewen, & Lehman, 2004).

Conformity motives involve drinking to avoid the occurrence of social rejection, in which the desire to earn peer acceptance and social approval (Ham & Hope, 2003) creates room for an individual to drink. According to Cooper (1994), an individual has conformity motives to drink when there are strong pressures to conform, especially among men who have greater self-consciousness, by which they chose to drink so that could avoid any aversive upshot (Ham & Hope, 2003). It is the choice of going along or going alone, which generally falls back at going along as it is often adaptive (Griskevicius, Goldstein, Mortensen, Cialdini, & Kenrick, 2006).

Besides, conformity motives too, like enhancement motives, were found to be highly associated with alcohol-related problems (Cooper, 1994; Stewart et al., 2006). Similar to social motives, conformity motives too are greatly associated with low Intellect/Imagination, in which these individuals allow the thoughts and decisions of others to control themselves. These individuals too were reported to have a high emotional stability thus prevent them to drink to suppress their negative feelings (Theakston et al., 2004).

Coping motives involve drinking to avoid the experience of negative emotions such as depression or anxiety. Lewis et al. (2008) outlined that socially anxious students consume alcohol more frequently on the basis of coping with negative feelings. In other word, it could refer to as drinking to cope with fear or stress, avoidance, or self-medication drinking (Ham & Hope, 2003). College students with higher levels of stress were seen to be highly motivated to drink to cope as a result of inability to restrain their behavior under stress (Corbin, Farmer, & Nolen-Hoekesma, 2013) which anticipate high frequency of alcohol consumption as a mean to cope their negative emotions. Similar to enhancement motives, both coping-anxiety and coping-depression motives seem to be associated with greater drinking problems, and also psychological distress (Ham & Hope, 2003) compared to the effect of enhancement motives. However, both coping-anxiety and coping-depression were not falling under the same trait personality as suggested by Mezquita et al. (2010).

Coping-anxiety motives were significantly predicted by Low Conscientiousness (antisocial personality disorder) along with Neuroticism (characteristic of borderline personality disorder); whereas Neuroticism alone predicted coping-depression motives (Mezquita et al., 2010). Besides being neurotic and having low conscientiousness, coping motives too was shown to have a low level of agreeableness, inferiority complex, and difficulties in identifying and describing emotions, as well as being fearful of anxiety-related sensations (Kuntsche et al., 2006).

The vulnerability of coping motives appears to be stronger for women than men during the period in college, and vice versa when enters later life (Kuntsche et al., 2006). Coping motives were considered as the most potential mediating factor for alcohol consumption among college students, particularly females. However, Hussong (2007)

stressed that men were reported to drink sooner than women when encountered negative feelings, for instance, sadness. Yet, Hussong (2007) found it difficult to generalize these findings as the interaction between the three variables; gender, drinking motives and alcohol-related problems together prompt drinking behavior. Women high in both coping motives and alcohol-related problems were seen to drink sooner after a saddened event compared to women who had either and/or both variable in low state. Whereas for men, being high in alcohol-related problem did not prompt drinking behavior at the soonest, but with lower alcohol-related problems and any state of coping motives (Hussong, 2007; as cited in Littlefield, Talley, & Jackson, 2012).

Understanding the coping motives and conformity motives as essential factors in social anxiety, more studies have been done specifically into finding the gradual effects of these motives in alcohol use, such as drinking frequency and problems. Drinking to cope with emotional pain or fear, specifically, associates greatly with women than men (Beck et al., 1995; as cited in Ham & Hope, 2003). Similarly, a study by Stewart, Zvolensky, and Eifert (2001) also found that anxious women were more prone to increased drinking to avoid unwanted internal states compared to men, which explains the gender roles in coping motives.

Unlike coping motives, conformity motives seem to appear higher among men than women who choose to drink to express masculinity and to avoid appearing weak and incapacitated before male peers in social situations (Stewart, Zvolensky, and Eifert, 2001). Concluding these findings, it appears that male students are more susceptible to conformity drinking and female students are highly associated with coping drinking, and these negative reinforcement motives influence alcohol drinking behavior.

Whilst some studies suggested a significant positive relationship between social anxiety and alcohol use (Lewis & O'Neill, 2000), other studies have failed to show a significant relationship between these two variables. For example, Eggleston, Woolaweay-Bickel, and Schmidt (2004) found that Social Interaction Anxiety Scale (SIAS) scores have significant inverse relation to drinking frequency, and that no relationship was discovered between social anxiety and alcohol problems, similar to the findings by Ham & Hope (2005). Although numerous studies have been done in this field, the findings appeared to be yet inconsistent.

The framework shown in Figure 1.1 explains the expected role of drinking motives in the relationship between social anxiety and alcohol use. Enhancement motives and coping motives were believed to associate with all three characteristics of alcohol use (based on AUDIT); alcohol consumption, alcohol dependence symptoms, and alcohol-related problems. Social motives were expected to predict alcohol consumption and alcohol-related problems, but not alcohol dependence symptoms. Whereas conformity motives were not expected to predict alcohol consumption, but affiliated to alcohol-related problem and alcohol dependence symptoms, rather, associated with light, infrequent and non-problematic alcohol use. This framework will be re-reviewed at the end of this thesis based on the findings obtain in this study.

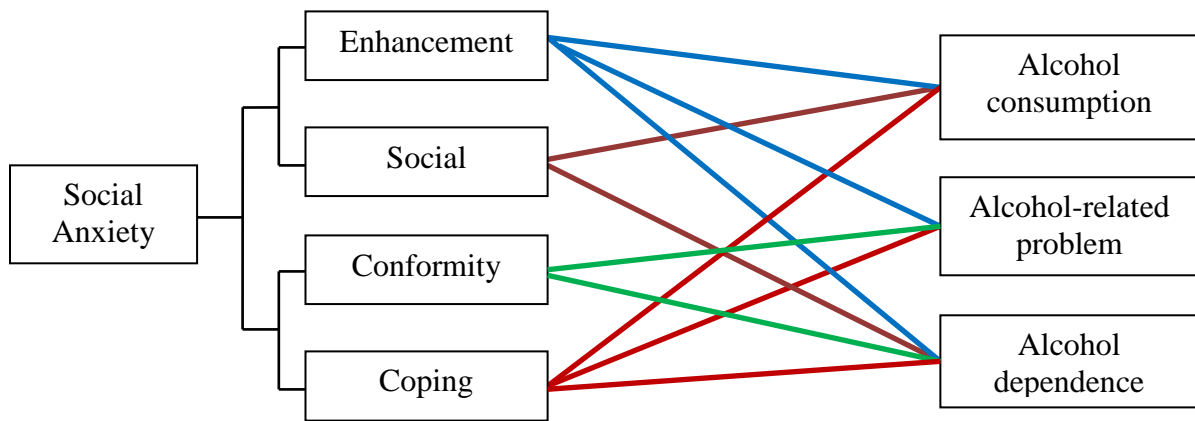


Figure 1.1. The effect of drinking motives on alcohol use among socially anxious students

In this thesis, a quantitative study was conducted to examine the mediating role of drinking motives in the relationship between social anxiety and alcohol use among private university students in the age range between 18 and 30 years old. The main hypotheses of this study were to support the findings of past studies such as Lewis and O'Neill (2000) that there is a significant positive correlation between social anxiety and alcohol use. Apart from that, it was also expected that a significant relationship exists between types of drinking motives and characteristics of alcohol use among university students. Lastly, drinking motives were believed would significantly mediate the relationship between social anxiety and alcohol use.

Alcohol has been described by many research findings to have undesirable effects on the consumer and those around them. Its harmful effects and lasting implications should make the society realize and put an end to alcohol abuse as it serves as the root of many social crimes in the country. The possibilities of not encountering any harmful contacts in the family or society engaged in alcohol have also drawn their expectation on consuming these

beverages as if it would not create a bad outcome. Easy availability of alcohol beverages nationwide, as well as its price in the affordable range too has played its part (Azizi, 2009).

1.2 Statement of Problem

Despite the belief that Social Anxiety Disorder and Alcohol Use Disorder tend to co-occur together or comorbid at some point of time, there appeared to be inconsistencies in proving the relationships between social anxiety and alcohol use. Morris, Stewart, and Ham (2005) who critically reviewed the relationship between social anxiety disorder and alcohol use disorders, have denoted that the epidemiological studies showed a significant comorbidity between these two disorders.

However, Morris et al. (2005) attempted to investigate the nature of this relationship due to the inconsistencies presented by past studies. For instance, there are some studies have demonstrated a positive relationship between social anxiety disorder and alcohol use disorder (Lewis & O'Neill, 2000; Morris, Stewart, Theakston, & Mellings, 2004), while some researchers had found a negative relationship (Ham & Hope, 2005), as well as no relationship at all found by Eggleston et al. (2004).

Apart from that, there is no single reason of why people starts to develop alcohol problem. Multiple biological and psychosocial factors have been part of alcohol problem development. Alcohol use too can be highly related to expectation and motivation pathways, namely alcohol expectancies and drinking motives. Alcohol expectancies are the belief that consuming alcohol will lead to a specific outcome. It is regarded as the belief or disbelief that consuming alcohol will reduce feelings of social anxiety and increase sociability and assertiveness. Positive alcohol expectancies specific to social situations believed to increase

frequency and amount of drinking compared to those lower on these socially relevant expectancies (Gillesa, Turk, & Fresco, 2006). Many scholars showed discrepancies explaining the mediator roles in the association between social anxiety and alcohol use.

Some other theories related to alcoholism could be tension-reduction theory and self-medication model; in which alcohol is used as negative reinforcement to overcome stress and fear, as well as for coping with unpleasant life events. Both these models suggested that alcohol reduces the physiological and cognitive anxiety. However, these models have failed to make provision for differences in contextual situations, individual differences, and cognitive factors (Pasche, 2012).

Researchers framed social anxiety as social cognitive causes that might be related in proactive prosocial behavior and attempting aggressive behavior. Proactive prosocial behavior refers to self-serving social cognitive style, which means that one do something in order to get something else (Culotta & Goldstein, 2008). This happens when socially anxious and lower self-esteem person felt unacceptable by society, and therefore they attempt to get others attention by engaging in such behavior (Culotta & Goldstein, 2008), such as alcohol drinking.

That was the significant reason of why this study is important to be conducted. There were many studies been carried out and generalized to study population in foreign countries. However, there was no study relating social anxiety, alcohol use and drinking motives been conducted in Malaysia. Thus, it is hardly possible to generalize the foreign data onto Malaysian context without significant findings from this country.

1.3 Significance Of Study

Both social anxiety and drinking behavior among college students are public health concerns, and the nature of relationship that exist between these variables stays inconsistent. At times this association has been overlooked and neglected. Hence, the current study was an essential stepping stone towards explicating these relationships.

In a multicenter cross-sectional study conducted in 16 universities in year 2006-2007 in Germany, it was found that more than 90.0% of students engaged in alcohol consumption in the last three months, 80.0% involved in heavy drinking, and 20.0% demonstrated problem drinking (Akmatov, Mikolajczyk, Meier, & Kramer, 2011). The statistics indicated 24.2% prevalence rate of drinking alcohol during the age period between 13 and 25 years old; the age group that consists of academic years.

Similar studies in Malaysia demonstrate that students are the most at-risk group for alcohol use as revealed by the NHMS in 2011 which reported that the early onset of alcohol consumption starts at the age of 13. Many adolescents were trapped by alcohol in various incidents, for instance, an 18-year-old girl, who is a private college student, was gang-raped by four friends during a drinking session in Kuching, Malaysia (Povera, A., 2016).

This study was significant because it was expected to provide the indispensable facts about students at higher studies institutions on their emotions, socialization, fear and intoxications. Thus, the findings of this study were expected to benefit the students, academic officials, and other caretakers, friends and family, as well as counsellors and future researchers.

Adding to this, four drinking motives have been proposed to mediate alcohol use when an individual faces social fears, which are enhancement motives, coping motives,

social motives and conformity motives. Identifying the drinking motives which generate problem drinking and alcohol dependence symptoms are very important in assisting the at-risk group to develop a positive well-being. This study serves as the base for future plans of action by the counsellors and psychologists with regard to the necessary intervention method for the recovery of the deteriorating lifestyle of the students caused by excessive alcohol use and dependence symptoms. Effective public health interventions can be formulated by health practitioners and caretakers to tackle the at-risk group from drowning into alcohol dependence symptoms, and dispute the faulty beliefs of students about the magic of alcohol, and an alternative positive coping method can be taught to the society.

Various factors play its role in differentiating the level of alcohol consumption among university students; in this context, the Nation. Americans are reported to have the highest drinking rates than the Africans and Asians (O'Malley & Johnston, 2002). This study will help Malaysia to stand with its own prevalence rate of alcohol use among university students, which has fewer analyses on it, especially with the association of social anxiety and drinking motives. Findings from this study could be used as baseline information describing the drinking patterns among Malaysian, respective to age group and gender, as well as other supporting factors, particularly in the Klang Valley.

Furthermore, this study serves as a framework for future studies of the same nature to have a better understanding of the social lives among students in Malaysia. Future researchers will benefit from this study, and it will provide them the facts needed to compare their study during their respective time and usability.

1.4 Relevant To Local Population

Nine million people drink alcohol at riskier level, and 1.6 million adults show symptoms of alcohol dependence (Public Health England [PHE], 2013). Alcohol misuse leads to various diseases and disorders; stroke, reduced fertility, cancer, pancreatitis, depression and anxiety to name a few. Students exposed to alcohol at such young ages increases the chances of developing an alcohol use disorder. Approximately 21,485 people had died due to alcohol-related problems in the year 2012 (PHE, 2013).

To completely eliminate the use of alcohol could be highly challenging and impossible as alcohol has been in use for a variety of reasons, particularly for medications and cosmetics, besides taking as beverages. However, it can be minimized to reduce the harm and negative affect to drinkers. One method to achieve this is to spread awareness about alcohol negative effects to young people, especially, to prevent drinking at early ages or to delay the onset age of drinking. The young people who have already started drinking, for instance for social purposes or as a coping mechanism, can be educated to make a smart decision to overcome their desire to socialize or to overcome their unpleasant emotions instead of consuming alcohol. To identify the group at risk, this study focused on studying the university students who fall in the category of young people.

The data gathered from this study will be able to tell the most prevalent mediator that drives an individual to drink, and the impacts of alcohol in the long run such as alcohol-related problems and alcohol dependence. This study could act as a referral to students to understand themselves and change their drinking pattern to reduce the harmful effects of alcohol in adulthood. Additionally, schools and rehabilitation centers across the nation will be able to develop a prevention or intervention program for the students, targeting the most

vulnerable group or cases which can be identified from this study; for instance, prevent drinking to please peers or to enhance self to perform confidently where these objectives can be gained naturally in healthy ways without the use of alcohol.

Nurturing on healthy behavior should be started at early ages to shape the well-being of people. Since the onset age of alcohol drinking in Malaysia begins at the age of 15 (Ardiah et al., 2009), a period where academic life takes charge on one's psychological development, this study which focused on the university students could be greatly beneficial to the entire population.

1.5 Definition of Study

Social anxiety

Conceptual A persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way that will be embarrassing and humiliating (American Psychiatric Association, & American Psychiatric Association, 1994)

Operational In this study, social anxiety is defined as a fear of being negatively evaluated or appraised in social situations towards own personality, speech and performance.

Alcohol use

Conceptual Alcohol use involves the consumption of beer, wine, or hard liquor (National Institutes of Health, 2012)

Operational In this study, alcohol use refers to drinking behavior to socialize, to celebrate, to relax and as medication.

Drinking Motives

Conceptual Drinking motives are defined as the final decision whether to drink or not to drink and therefore the most proximal factor for engaging in drinking, in other words, drinking motives are the final pathway to alcohol use (Kuntsche, Knibbe, Gmel, & Engels, 2005).

Operational In this study, drinking motives refer to the reasons of drinking such as to escape from disturbing life events, or to cope with negative emotional states, and celebrate, to enjoy or to be sociable, as well as to enhance feelings of pleasure, and to be accepted by peers.

Enhancement Motives

Conceptual Enhancement motives mediated the associations between emotional stimulation factors such as social lubrication alcohol expectancies and impulsivity–sensation seeking with alcohol involvement (Read, Wood, Kahler, Maddock, & Palfai, 2003).

Operational In this study, enhancement motives refer to internally generated positive reinforcement mechanism which is to enhance positive mood that causes higher levels of alcohol consumption compared to externally generated social drinking and conformity drinking.